ABSTRACT OF THE DISCLOSURE

A digital RF tag (10) for providing an automatic reply to an electromagnetic signal. The system includes a radar receiver (11, 20); signal and data processors (50, 64) for analyzing the electromagnetic signal to extract data with respect thereto and for synthesizing a second electromagnetic signal; and a radar transmitter (11, 20). The radar receiver (11, 20) is a narrow band radar receiver. The use of a narrow band receiver minimizes power consumption and extends battery life. The inventive RF tag (10) tracks the received radar signal. The data processor (50) includes a microprocessor adapted to execute software designed to implement the tracking function. While the received radar signal is being tracked, type and timing data are extracted and used to synthesize a reply signal. The use of a synthesized reply signal, as opposed to a recorded and modified transmit signal as a reply signal, allows for the transmission of the cleaner (noise free) reply signal. In addition, other data including voice and video may be impressed onto the reply signal.